

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Blake W. Little et al.

Application No.: 10/821,123

Confirmation No.: 8209

Filed: April 8, 2004

Art Unit: 2416

For: SYSTEMS AND METHODS PROVIDING
ASICS FOR USE IN MULTIPLE
APPLICATIONS

Examiner: P. H. Tran

AMENDED APPEAL BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Madam:

As required under 37 C.F.R. § 41.37(d), this amended brief is filed in response to a Notice of Non-Compliant Appeal Brief [hereinafter "Notice"] mailed April 29, 2009. According to MPEP 1205.03(B), when the Office holds a brief to be defective due to Appellant's failure to provide a summary of the claimed matter as required by 37 CFR 41.37(c)(1)(v), an entire new brief need not, and should not, be filed. Rather, a paper providing a summary of the claimed subject matter as required by 37 CFR 41.37(c)(1)(v) will suffice.

The Notice states that "the summary of claimed subject matter section does not map the independent claim on appeal, to the specification by page and line number (claim 25)." As such, Appellant includes herein a replacement Summary of Claimed Subject Matter section of which only claim 25 has been changed.

Replacement Summary of Claimed Subject Matter Section

For the convenience of the Board and pursuant to M.P.E.P. 1205 (c)(v), Appellant has included, by way of example, a concise explanation of the subject matter defined in each of the independent claims and many of the dependent claims. To ensure brevity, the explanatory examples cite to only one exemplary embodiment. Other passages not cited herein may provide additional explanation of the subject matter.

An embodiment of the present invention is described in claim 1 which includes a system comprising an application specific integrated circuit (ASIC) 102 of Figure 1 adapted for use in a plurality of systems as described in paragraph [0020] of the originally filed application. Wherein the system is one of the plurality of systems, and each system has a circuit configuration that uses a different number of signal channels for further processing by the application specific integrated circuit as described in paragraph [0021] of the originally filed application.

An embodiment of the present invention is described in claim 2 which includes the system of claim 1 wherein the ASIC comprises a plurality of multiplexors providing N to M signal multiplexing, wherein in a first configuration of the circuit configurations the ASIC is configured to provide N to M signal multiplexing, and wherein in a second configuration of the circuit configuration the ASIC is configured to provide N to M/2 signal multiplexing as described in paragraphs [0021] and [0030] of the originally filed application.

An embodiment of the present invention is described in claim 3 which includes the system of claim 2, wherein the plurality of multiplexors include N signal inputs, M signal outputs, at least one select signal input, and at least one enable signal input, the enable signal input being utilized in providing the N to M/2 signal multiplexing of the second configuration as described in paragraphs [0021] and [0030] of the originally filed application.

An embodiment of the present invention is described in claim 10 which includes a system comprising an application specific integrated circuit (ASIC) 210 of Figure 2A adapted for use in a plurality of circuit configurations as described in paragraph [0024] of the originally filed

application. Further, the circuit configurations provide for different numbers of signal channels for further processing using same circuitry of the application specific integrated circuit as described in paragraph [0021] of the originally filed application. Moreover, the ASIC 210 is included in an application comprising a transducer 201 of Figure 2A, a beam former 221, and a data path 104 of Figure 1, and wherein the data path is in communication with the ASIC, the transducer, and the beam former as explained in paragraph [0020] and Figure 1 of the originally filed application.

An embodiment of the present invention is described in claim 11 which includes the system of claim 10 wherein the application further comprises a signal processing unit external to the data path and in communication with the data path at a number of points thereon and is operable to capture and insert information in the data path at each of those number of points as explained in paragraph [0020] and Figure 1 of the originally filed application.

An embodiment of the present invention is described in claim 12 which includes a method comprising determining a number of channels for use in a data path 801 of Figure 8 and configuring an ASIC adapted for use in a plurality of systems 802 of Figure 8 as explained in paragraph [0006] of the originally filed application. Further, each system has a circuit configuration that uses a different number of channels, to provide the determined number of channels as explained in paragraph [0007] of the originally filed application.

An embodiment of the present invention is described in claim 13 which includes a method comprising determining a number of channels for use in a data path and configuring an ASIC adapted for use in a plurality of configurations to provide the determined number of channels as explained in Figure 8 and paragraph [0051] of the originally filed application. Further, the method comprises implementing in a sonogram imaging system the ASIC, a first beam former, the data path, and a transducer array, wherein the ASIC, the first beam former, and the transducer array are in communication with the data path as explained in paragraph [0051]. See, Figure 8 and paragraph [0051] of the originally filed application.

An embodiment of the present invention is described in claim 14 which includes the method of claim 12 further comprising summing data on each of at least two channels by the ASIC as described in paragraph [0032] of the originally filed application.

An embodiment of the present invention is described in claim 24 which includes the method of claim 12 further comprising implementing a signal processing unit to communicate with the data path at a number of points as shown in paragraph [0020] of the originally filed application. Furthermore, the method includes programming the signal processing unit with code to provide a mode of functionality not originally included in a platform and operating the signal processing unit to intercept and insert data along the number of points on the path, thereby instructing the platform to perform the mode as shown in paragraph [0048] of the originally filed application.

An embodiment of the present invention is described in claim 25 which includes an apparatus comprising a sonogram imaging system including a transducer 201 (p. 6, para. [0024], ln. 3; fig. 2A), a beam former 221 (p. 6, para. [0024], ln. 6; fig. 2A), a data path including a plurality of information channels connecting the transducer to the beam former (p. 6, para. [0023], lns. 3-5; fig. 2A), and an ASIC 210 (p. 6, para. [0025], lns. 1-8; fig. 2A) in communication with the data path between the transducer and the beam former, including circuitry operable as a bank of multiplexors to decrease a number of the information channels from the transducer to the beam former as disclosed on page 6, paragraph [0025], lines 1-8 and figure 2A of the originally filed application.

An embodiment of the present invention is described in claim 29 which includes an apparatus comprising a sonogram imaging system including a transducer 401, a beam former 431, a data path including a plurality of information channels connecting the transducer to the beam former, and an ASIC 410 in communication with the data path between the transducer and the beam former, including circuitry operable as a summer/cross-point switch, to route a number of information channels from the transducer to the beam former as disclosed in paragraphs [0041] and [0042] of the present application.

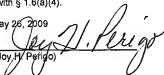
There are no fees required with this Amended Appeal Brief.

Dated: May 26, 2009

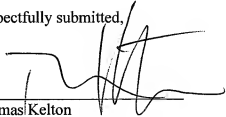
Amended Appeal Brief

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4).

Dated: May 26, 2009

Signature: 
(Joy H. Perigo)

Respectfully submitted,

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